

1      **Listing of Claims to Replace All Prior Versions of Claims in the Application**

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3      1. (currently amended) A method of synchronizing data among a  
4      plurality of web servers, wherein each of the plurality of web servers is coupled to  
5      a common data server, the method comprising:

6                retrieving receiving a scheduled activation time from the data server;  
7                prior to the scheduled activation time, retrieving receiving updated data into  
8      staging caches in the plurality of web servers; and

9                at the scheduled activation time, copying causing the updated data from the  
10     staging caches within each of the plurality of web servers to be accessible from an  
11     active cache within each of the plurality of web servers.

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13      2. (original) A method as recited in claim 1 further comprising:  
14                comparing a time associated with a clock in each web server to a time  
15      associated with a clock in the data server; and  
16                adjusting the scheduled activation time on each web server by the time  
17      difference between the clock in the web server and the clock in the data server.

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19      3. (original) A method as recited in claim 1 wherein each web server  
20      contains a clock, and wherein the clocks in the plurality of web servers are not  
21      synchronized with one another.

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23      4. (original) A method as recited in claim 1 wherein the copying data  
24      comprises swapping an active data cache pointer with a staged data cache pointer.

1       5. (original) A method as recited in claim 1 wherein no  
2       communications are required between the individual web servers to synchronize  
3       their data.

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5       6. (original) A method as recited in claim 1 wherein retrieving updated  
6       data into staging caches in the plurality of web servers is performed  
7       asynchronously.

8  
9       7. (original) A method as recited in claim 1 further comprising:  
10       after the scheduled activation time, updating data caches in the data server.

11  
12       8. (original) A method as recited in claim 1 further comprising:  
13       after the scheduled activation time, calculating a next scheduled activation  
14       time.

15  
16       9. (original) A method as recited in claim 1 further comprising:  
17       after the scheduled activation time, updating data caches in the data server  
18       and calculating a next scheduled activation time, wherein the updating and  
19       calculating are performed by the first web server to initiate a retrieval process after  
20       the scheduled activation time.

1        10. (original) A method as recited in claim 1 further comprising:  
2            if an additional web server is coupled to the data server, then copying data  
3            from an active cache in the data server to an active cache in the additional web  
4            server.

5  
6        11. (original) A method as recited in claim 1 further comprising:  
7            if one of the plurality of web servers is initialized, then copying data from  
8            an active cache in the data server to the active cache in the initialized web server.

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10       12. (original) A method as recited in claim 1 wherein the plurality of  
11            web servers comprise a web farm.

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13       13. (original) A method as recited in claim 1 wherein the plurality of  
14            web servers comprise a web farm, and wherein the plurality of web servers are  
15            load balanced using a domain name service (DNS) round-robin technique.

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17       14. (original) One or more computer-readable memories containing a  
18            computer program that is executable by a processor to perform the method recited  
19            in claim 1.

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21       15. (currently amended) A system comprising:  
22            a plurality of web servers coupled to a common data server, wherein each  
23            of the plurality of web servers comprises:  
24                a staging cache;  
25                an active data cache coupled to the staging cache;

1                   wherein the web server is configured to retrieve receive a scheduled  
2 activation time from the data server, and further configured to retrieve  
3 receive updated data from the data server into the staging cache prior to the  
4 scheduled activation time; and

5                   wherein the web server is configured to copy cause data from the staging  
6 cache to be accessible from the active data cache at the scheduled activation time.

7  
8                 16. (original) A system as recited in claim 15 wherein each web server  
9 contains a clock having an associated time, and wherein each web server is  
10 configured to compare the time associated with the clock in the web server to a  
11 time associated with a clock in the data server.

12  
13                 17. (original) A system as recited in claim 16 wherein each web server  
14 is further configured to adjust the scheduled activation time on the web server by  
15 the time difference between the clock in the web server and the clock in the data  
16 server.

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18                 18. (original) A system as recited in claim 15 wherein each web server  
19 contains a clock, and wherein the clocks in the plurality of web servers are not  
20 synchronized with one another.

21  
22                 19. (original) A system as recited in claim 15 wherein the web server is  
23 further configured to swap an active data cache pointer with a staged data cache  
24 pointer.

1           **20. (original)** A system as recited in claim 15 wherein each of the  
2 plurality of web servers is configured to update data caches in the data server after  
3 the scheduled activation time.

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5           **21. (original)** A system as recited in claim 15 wherein each of the  
6 plurality of web servers is configured to calculate a next scheduled activation time  
7 after the scheduled activation time.

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9           **22. (original)** A system as recited in claim 15 wherein the plurality of  
10 web servers comprise a web farm.

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12           **23. (currently amended)** One or more computer-readable media having  
13 stored thereon a computer program that when executed performs a method  
14 comprising the following steps:

15           retrieving receiving a scheduled activation time from a data server;  
16           prior to the scheduled activation time, retrieving receiving updated data into  
17 a staging cache in a server;  
18           at the scheduled activation time, copying causing data from the staging  
19 cache in the server to be accessible from an active cache in the server; and  
20           after the scheduled activation time, updating data caches in the data server  
21 and calculating a next scheduled activation time.

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1           24. (original) One or more computer-readable media as recited in claim  
2 23 further comprising:

3           comparing a time associated with a clock in each server to a time associated  
4 with a clock in the data server; and

5           adjusting the scheduled activation time on each server by the time  
6 difference between the clock in the server and the clock in the data server.

7  
8           25. (original) One or more computer-readable media as recited in claim  
9 23 wherein each server contains a clock, and wherein the clocks in the plurality of  
10 servers are not synchronized with one another.

11  
12          26. (original) One or more computer-readable media as recited in claim  
13 23 wherein updating data caches in the data server and calculating the next  
14 scheduled activation time are performed if another process has not yet updated the  
15 data caches or calculated the next scheduled activation time during a current data  
16 synchronization cycle.

17  
18          27. (original) One or more computer-readable media as recited in claim  
19 23 further comprising:

20           if the server is initialized, then copying data from an active cache in the  
21 data server to the active cache in the initialized server.

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1           **28. (original)** One or more computer-readable media as recited in claim  
2 wherein the copying data comprises swapping an active data cache pointer with  
3 a staged data cache pointer.

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5           **29. (currently amended)** A method of synchronizing data among a  
6 plurality of web servers, wherein each of the plurality of web servers is coupled to  
7 a common data server, the method comprising:

8           providing a scheduled activation time from the data server to each of the  
9 plurality of web servers;

10           communicating updated data into a staging cache in each of the plurality of  
11 web servers prior to the scheduled activation time; and

12           copying causing data from the staging cache in each of the plurality of the  
13 web servers to be accessible from an active cache in each of the plurality of the  
14 web servers at the scheduled activation time.

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16           **30. (original)** A method as recited in claim 29 wherein the  
17 communicating updated data into a staging cache is performed asynchronously.

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19           **31. (original)** A method as recited in claim 29 wherein the copying data  
20 comprises swapping an active data cache pointer with a staged data cache pointer.

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22           **32. (original)** A method as recited in claim 29 wherein no  
23 communication is required between the web servers to synchronize their data.

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1       33. (original) One or more computer-readable memories containing a  
2 computer program that is executable by a processor to perform the method recited  
3 in claim 29.

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5       34. (new) A method of synchronizing data among a plurality of web  
6 servers, wherein each of the plurality of web servers is coupled to a common data  
7 server, the method comprising:

8           receiving, by the plurality of web servers, a scheduled activation time from  
9 the data server;

10          receiving, by the plurality of web servers, data from the data server to be  
11 stored in active caches of the plurality of web servers;

12          updating, by the plurality of web servers, the active caches of the plurality  
13 of web servers with the data received from the data server at the scheduled  
14 activation time so that the plurality of web servers are updated with the data at  
15 substantially the same time.

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17       35. (new) A method according to claim 34 wherein the scheduled  
18 activation time is based on a worst-case time needed to copy data from the data  
19 server by a web server of the plurality of web servers.